

チーム名： アト秒科学研究チーム

(1) 原著論文 (accept) を含む / Original Papers

1. K. Toda, K. Isobe, K. Namiki, H. Kawano, A. Miyawaki, and K. Midorikawa, "Interferometric temporal focusing microscopy using three-photon excitation fluorescence," *Biomed. Opt. Express* 9, 1510-1519 (2018).
2. D. Serien, H. Kawano, A. Miyawaki, K. Midorikawa, and K. Sugioka, "Femtosecond Laser Direct Write Integration of Multi-Protein Patterns and 3D Microstructures into 3D Glass Microfluidic Device," *Appl. Sci.-Basel* 8, 147 (2018).
3. V. H. Trinh, T. Morishita, E. J. Takahashi, and K. Midorikawa, "Probing two-electron dynamics of helium in time domain via fluorescence channel," *Journal of Electron Spectroscopy and Related Phenomena* 220, 133-136 (2017).
4. C. R. Locke, T. Kobayashi, T. Fujiwara, and K. Midorikawa; "Selective photoionization of palladium isotopes using a two-step excitation scheme", *Appl. Phys. B* 123, 240, (2018).
5. T. Murakami, N. Saito, Y. Komachi, K. Okamura, T. Michikawa, M. Sakashita, S. Kogure, K. Kase, S. Wada, and K. Midorikawa, "High spatial resolution survey using frequency-shifted feedback laser for transport infrastructure maintenance, " *Journal of Disaster Research* 12, 546 (2017).
6. Y. Fu, E. J. Takahashi, and K. Midorikawa, "Energy Scaling of Infrared Femtosecond Pulses by Dual-Chirped Optical Parametric Amplification," *IEEE Photonics Journal* 9, 1-8 (2017).
7. K. Toda, K. Isobe, K. Namiki, H. Kawano, A. Miyawaki, and K. Midorikawa, "Temporal focusing microscopy using three-photon excitation fluorescence with a 92-fs Yb-fiber chirped pulse amplifier," *Biomed. Opt. Express*, 8, 2796-2806 (2017).

(2) 著書・解説など / Book Editions, Review Papers

1. 村上武晴, 斎藤徳人, 道川隆士、小町祐一, 岡村幸太郎, 坂下亨男, 木暮繁, 加瀬究, 和田智之, 緑川克美, "高空間分解スキャニングライダー:トンネル内壁面の精密調査に向けて", *レーザー研究*, 45, 403-407 (2017).
2. 沖野友哉, 鍋川康夫, 緑川克美, "高強度数パルスアト秒パルス列を用いたアト秒電子波束の観測", *レーザー研究*, 第 45 巻第 4 号, 212-216 (2017).
3. 沖野友哉, 鍋川康夫, 緑川克美, "アト秒科学の進展", *光技術コンタクト*, 第 55 巻, 第 3 号, 24-30, (2017).
4. 磯部圭佑, "深部イメージング性能を向上させる多光子蛍光顕微鏡技術", *生体の科学*, 68, 394-395, (2017).

(3) 招待講演 / Invited Talks

1. T. Okino., Y. Nabekawa. K. Midorikawa, "Observation of ultrafast molecular dynamics with a-few-pulse attosecond pulse train", 14th International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2018), Thessaloniki, Greece, Mar. (2018).
2. T. Okino, Y. Nabekawa, K. Midorikawa, "Attosecond Molecular Dynamics Investigated with A-few-pulse Attosecond Pulse Train ", The 10th Asian Symposium on Intense Laser Science (ASILS10), Dubai United Arab Emirates, Mar. (2018).
3. K. Midorikawa, "Multi-Port Intra-Cavity High Harmonic Generation in Yb:YAG Thin Disk Mode-Locked Oscillator with MHz Repetition Rate," 10th Asian Symposium on Intense Laser Science, Sharjah, UAE, Mar. (2018).
4. E. J. Takahashi, "Generation of TW-scale mid-IR femtosecond pulse using dual-chirped optical parametric amplification", SPIE. Photonics USA, West, Jan. (2018).
5. K. Midorikawa, "Next generation high-order harmonic sources," International Conference on Extreme Light, Szeged, Hungary, Nov. (2017).
6. K. Midorikawa, "Next generation high-order harmonic sources," International Symposium on Ultrafast Intense Laser Science 2017, Lijian, China, Nov. (2017).
7. E. J. Takahashi, "High-energy ultrafast infrared femtosecond pulse by dual-chirped OPA - towards multi-TW infrared pulses -", 2017 Ireland-Japan Collaboration Workshop, Ireland, Nov. (2017).
8. K. Midorikawa, "High power laser technology for next generation high-order harmonic sources" Advanced solid state lasers conference, Nagoya, Japan. Oct. (2017).
9. K. Midorikawa, "High-order harmonics: Application and Prospects," OSA Laser Congress, Nagoya, Japan. Oct. (2017).
10. E. J. Takahashi "High-energy infrared femtosecond pulse for attosecond sciences", Ultrafast Optics 2017, USA, Oct. (2017).
11. Y. Nabekawa, T. Okino, and K. Midorikawa "Observation and control of sub-10 fs dynamics in molecules using intense XUV attosecond pulse trains", 2nd International Symposium on Attosecond Science, Japan, Aug. (2017).
12. E. J. Takahashi, Y. Fu, and K. Midorikawa, "High energy infrared technology for intense high harmonic generation," The 12th CLEO-PR, Singapore, Aug. (2017).
13. K. Midorikawa, "Next generation high-order harmonic sources, " Nonlinear Optics, Waikoloa, Hawaii, July (2017).
14. K. Midorikawa, "Next generation high-order harmonic sources and applications," The 8th Shanghai-Tokyo Advanced Research symposium on Ultrafast Intense Laser Science, Dunhuang, China, May (2017).
15. K. Midorikawa, "Next generation high harmonic sources and applications," The 2017 CLEO Conference, San Jose, CA, USA, May (2017).

16. 磯部 圭佑, 並木 香奈, 河野 弘幸, 宮脇 敦史, 緑川 克美, “波面歪み情報の in-situ 非線形読み出しとその補償による深部イメージング能力改善”, 日本光学会フォトダイナミズム研究グループ主催シンポジウム「フレキシブルイメージング:光源から揺らぐ媒質、光学系、データ解析までの統合と柔軟な制御への挑戦」, 東京, 2月6日, (2018).
17. 磯部 圭佑, 並木 香奈, 河野 弘幸, 宮脇 敦史, 緑川 克美, “時空間変調技術を用いた多光子顕微鏡の深部イメージング能力向上”, レーザー学会学術講演会第38回年次大会, 京都, 1月26日, (2018).
18. 沖野友哉, 鍋川康夫, 緑川克美, “アト秒非線形フーリエ分子分光”, レーザー学会学術講演会第38回, 京都, 1月24日, (2018).
19. 沖野友哉, 鍋川康夫, 緑川克美, “アト秒科学の進展:パルス計測から分子ダイナミクス計測へ”, 光量子科学連携研究機構・レーザーアライアンス合同シンポジウム/第37回先端光量子科学アライアンスセミナー, 東京, 12月14日, (2017).
20. 緑川克美, 沖野友哉, 鍋川康夫, “原子・分子のアト秒量子ダイナミクスの計測”, 2017年第78回応用物理学会秋季学術講演会, 福岡, 9月5日, (2017).
21. 磯部圭佑, 緑川克美, “超短光パルスの時空間制御による非線形顕微イメージング”, OPIE'17 オープンセミナー『バイオイメージングと応用への期待』, 横浜, 4月21日, (2017).

(4) 会議、シンポジウム、セミナー主催 / Meeting, Symposiums and Seminars

1. 2nd International Symposium on Attosecond Science, Wako, Japan, August 26, (2017).

(5) 特許出願 / Patent Applications

1. 磯部圭佑, 緑川克美, 松本 健志, 田辺 綾乃, “適応光学素子”, 特願 2018-033251, 出願日 2018年2月27日.